between circumferential segments of the two rollers (11, 12) that have not yet acted on the respective section of the metal strip (16) in the one or more preceding rolling steps.

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10. The method as defined in claim 1, **characterised in that** by rolling the metal strip (16) it is simultaneously equalised.

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11. The method as defined in claim 1, **characterised in that** proofs for coins and medals are produced from the pre-material.

12. The method as defined in claim 1, **characterised in that** the profile is rolled into the metal strip (16) by sections, the profile extending over the full width of the metal strip (16) and having a metal-strip thickness (16) varying over the length of the metal strip (16).

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14. The method as defined in claim 1, **characterised in that** the rollers (11, 12) and the metal strip (16) are accelerated and braked in the respective rolling steps in synchronism and to the same degree.

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15. The method as defined in Claim 1, **characterised in that** for producing a strip-like pre-material with a profile recurring in successive sections of the pre-material, a roll stand (2) is used which permits the height of the roll gap (13) to be varied, and that the sections of the metal strip (16) to be profiled are passed through the roll gap (13) in recurring steps of predetermined lengths (21) until

the depth of the desired profile of the pre-material has been reached in the respective section of the metal strip (16).

16. The method as defined in Claim 12 or 15, **characterised in that** a profile is rolled into the recalled section of the metal strip (16) in two or more than two rolling steps.

17. The method as defined in Claims 12 or 15, **characterised in that** the profile is rolled into the metal strip (16) from above.

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18. The method as defined in Claim 12 or 15, **characterised in that** the profile is rolled into the metal strip (16) from below.

19. The method as defined in Claim 12 or 15, **characterised in that** a profile is rolled into the metal strip (16) from above and from below.

20. The method as defined in Claim 12, **characterised in that** the metal strip (16) is merely reduced in thickness, but not yet profiled, in a first rolling step.

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22. The method as defined in Claim 20, **characterised in that** the reducing step is followed by one or more profiling steps between the same two rollers (11, 12).

23. The method as defined in Claim 20, **characterised in that** the length (L2)

of the reducing step is greater than the length (L1) of the next following profiling step.

24. The method as defined in Claim 20, **characterised in that** the metal strip (16) is recalled, following the reducing step, by a length smaller than the length

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(L2) of the reducing step and greater than the length (L1) of the next following profiling step in the same section of the metal strip (16).

25. The method as defined in Claim 12, **characterised by** the use of a roll stand (2) in which at least one of the two rollers (12) comprises in its shell surface a profiled segment (35, 40) with a contour which, in combination with the contour of the other roller (11), defines the roll gap (13).

27. The method as defined in Claim 12, **characterised in that** one roller (12) of

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the roll stand (2) is displaced during the rolling process of the metal strip (16) for varying the height of the roll gap (13).

31. The method as defined in Claim 27, **characterised in that** the displacement

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of the roller (12) is effected by means of a programme-controlled drive (32, 33, 34, 44), the profile to be produced in the respective rolling step being stored in a programme-controllable control unit (43) as control curve for the drive (32, 33, 34, 44) which effects the displacement of the roller (12).

32. The method as defined in Claim 27, **characterised in that** one of the rollers, specifically the upper roller (12), has a notch (45) parallel to its axis.

33. The method as defined in claim 1, **characterised in that** the two rollers (11, 12) are driven step by step and in synchronism with the feeding motion of the metal strip (16).

34. The method as defined in claim 1, **characterised in that** the two rollers (11, 12) are differently rotated during the recalling action of the metal strip (16).

35. The method as defined in Claim 15, **characterised in that** a relieved portion (37, 38, 39) is provided in the shell surface of the rollers (11, 12), between the circumferential segments (35, 36, 40) effective during the rolling process, which relieved portion extends over a circumferential angle such that the next following circumferential segment (35, 36, 40) to become active during the rolling process will cut into the metal strip (16) only after the preceding circumferential segment of the metal strip (16), active during the rolling process, has released the metal strip (16).

36. The method as defined in claim 1, in combination with Claim 11 or 25, **characterised in that** the thickness of the metal strip (16) is reduced during the equalising step by a dimension in the order of one tenth of the thickness.

37. The method as defined in claim 1, **characterised in that** the metal strip

(16) to be rolled is unwound from a first coiler (5) and the rolled metal strip (16) is wound up on a second coiler (6), and that the rotational speed of the rollers (11, 12) and the circumferential speed of the second coiler (16) are mutually matched, especially in the phase when the rollers (12, 13) cut into the metal strip (16).

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38. The method as defined in claim 1, **characterised in that** cutting-in by a roller (12) is effected at reduced rotational speed of the roller (12) and, correspondingly, reduced feeding speed of the metal strip (16) and that the movements are then accelerated.

39. The method as defined in Claim 1, **characterised in that** the metal strip (16) is recalled using a first pair of grippers (52).

41. The method as defined in Claim 39, **characterised in that** the metal strip (16) is pulled, during rolling, by a second pair of grippers (53) engaging that section of the metal strip (16) that exits from the roll gap (13).

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42. The method as defined in claim 1, **characterised in that** a tensile strength is constantly maintained in the metal strip (16), during rolling just as during the recalling action.

43. The method as defined in claim 1, **characterised in that** the width of the metal strip (16) is selected in such a way that two or more than two of the

objects, that are intended to be punched out from the pre-material formed by rolling, can be punched out one beside the other.

44. A device having a roll stand (2) with two rollers (11, 12) that define a roll gap (13) the height of which can be varied,

and with a recalling device (5, 52) for a metal strip (16) to be rolled, arranged on the run-in end of the roll gap (13),

for producing a strip-like pre-material from metal, with a profile which recurs in successive sections of the pre-material, according to the method defined in Claim 12,

for which purpose the first (11) and/or the second roller (12) are provided on their shell surface with two or more than two circumferential segments (35, 36, 40), following each other in the circumferential direction, which are not all of them equal in contour,

and for which purpose a drive motor (7, 54) is provided for the recalling device (5, 52) arranged on the run-in end of the roll gap (13), for recalling the metal strip (16) by steps of predeterminable length.

45. The device as defined in Claim 44, wherein the recalling device is a first coiler (5).

46. The device as defined in Claim 44, wherein the recalling device is a gripper feed mechanism (52).

47. The device as defined in claim 44, wherein a pulling device (6, 53) for the strip-like pre-material is provided on the run-out end of the roll gap (13).

48. The device as defined in Claim 47, wherein the pulling device is a second coiler (6) for winding up the strip-like pre-material.

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49. The device as defined in Claim 47, wherein the pulling device is a second gripper feed mechanism (53).

50. The device as defined in Claim 44, wherein the two rollers (11, 12) can be driven one independently from the other.

51. The device as defined in Claim 44, wherein at least one roller (11, 12) has a cylindrical circumferential segment (36).

52. The device as defined in Claim 51, wherein both rollers (11, 12) have a cylindrical circumferential segment (36).

53. The device as defined in Claim 44, wherein the roll stand (2) is designed as equalising rolling mill.

54. The device as defined in Claim 44, wherein the drive motor (7, 52) for the recalling device (5, 52) provided on the run-in end of the roll gap (13) is an electric servomotor.

55. The device as defined in Claim 44 wherein the pulling device (6, 53) provided on the run-out end of the roll gap (13) is driven by an electric servomotor (8, 55).

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56. The device as defined in Claim 44, wherein the two rollers (11 and 12) are each loaded on their side facing away from the roll gap (13) by one supporting roller (14, 15) whose roll necks (25) are pre-stressed in their roll neck bearings (26) for reducing their bearing play.

57. The device as defined in Claim 44, wherein the first roller (11) and the second roller (12) are not loaded by supporting rollers, but rather the roll necks (21, 22) of the first roller (11) and of the second roller (12) are pre-stressed in their roller neck bearings (22) for reducing their bearing play.

58. The device as defined in Claim 44, wherein the first and the second rollers (11, 12) are discontinuously driven in a manner such that they are driven, during the strip feed, in synchronism with the pulling device (6, 53) provided on the run-out end of the roll gap (13), whereas they are temporarily stopped and/or positioned individually or jointly by forward or reverse rotation when the recalling device (5, 52) provided on the run-in end of the roll gap (13) is driven in the reverse sense for recalling the metal strip (16).

59. The device as defined in Claims 44, wherein the circumferential speed of the two rollers (11, 12) and the speed of the pulling device (6, 53), preferably

also the speed of the recalling device (5, 52) can be controlled in arbitrary fashion.

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60. The device as defined in Claim 44, wherein one of the two rollers (12, 13), preferably the upper roller (12), can be moved up and down in controlled fashion during the rolling process.

61. The device as defined in Claim 60, wherein the one or the other roller (11, 12) can be selectively moved up and down in controlled fashion during the rolling process.

62. The device as defined in Claim 60 or 61, wherein one or more servo drives (32, 33, 34, 44) are provided for effecting the displacement of the respective roller (11, 12).

63. The device as defined in Claim 62, wherein the servo drives (32, 33, 34, 44) comprise one electric motor (34) or one or two short hydraulic cylinders each.

64. A device having a roll stand (2) with two rollers (11, 12) that define a roll gap (13) the height of which can be varied,

and with a recalling device (5, 52) for a metal strip (16) to be rolled, arranged on the run-in end of the roll gap (13),

for producing a strip-like pre-material from metal, with a profile which

recurs in successive sections of the pre-material, according to the method defined in Claim 12,

for which purpose one of the two rollers (11, 12) can be moved up and down in the roll stand (2) in controlled fashion during the rolling process, by a distance determined by the desired profile, in response to the feeding motion of the metal strip (16),

and for which purpose a drive motor (7, 54), specifically a servomotor, is provided for the recalling device (5, 52) arranged on the run-in end of the roll gap (13), for recalling the metal strip (16) by steps of predeterminable length.

65. A device having a roll stand (2) with two rollers (11, 12) that define a roll gap (13),

and with a recalling device (5, 52) for a metal strip (16) to be rolled, arranged on the run-in end of the roll gap (13),

for producing a strip-like pre-material from metal with high surface quality, according to the method defined in Claim 1,

for which purpose a drive motor (7, 54), specifically a servomotor, is provided for the recalling device (5, 52) arranged on the run-in end of the roll gap (13), for recalling the metal strip (16) by steps of predeterminable length.

66. The device as defined in Claim 64 or 65, wherein a pulling device (6, 53) for the strip-like pre-material is provided on the run-out end of the roll gap (13).

67. The device as defined in Claim 64 or 65, wherein the recalling device is a

first coiler (5).

68. The device as defined in Claim 64 or 65, wherein the recalling device is a gripper feed device (52).

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69. The device as defined in Claim 66, wherein the pulling device is a second coiler (6) for winding up the strip-like pre-material.

70. The device as defined in Claim 66, wherein the pulling device is a second gripper feed mechanism (53).

71. The device as defined in Claim 66, wherein a servomotor (8, 55) is provided also for the pulling device (6, 53) provided on the run-in end of the roll gap (13).

72. The device as defined in Claim 60 or 64, wherein an electric control unit (43) is provided in which the displacement of the one roller (12) required for an intended profile is, preferably, digitally stored as curve and wherein the servomotors (7, 8; 54, 55) of the recalling device (5, 52) and of the pulling device (6, 53), one or two servomotors (41, 42) for rotating the two rollers (11, 12), and one or more actuating drives (32, 33, 34) for the displaceable roller (12) coupled with an incremental rotary transducer (44), are connected to said control unit (43).

73. The device as defined in Claim 44 or 64 or 65 or 72, wherein the sense of rotation of the two rollers (11, 12) can be reversed for rolling in both directions.

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74. The device as defined in Claim 51, wherein the displaceable roller (11) has a notch (45) parallel to its axis.